

We Claim:

1. A flexible, layered material resistant to radiant and convective heat comprising:

at least two aluminum foil layers, at least one silica based cloth layer, and at least one fiberglass cloth layer;

wherein the layers are sewn together or bonded with adhesive;

wherein a first aluminum foil layer is an outermost layer whose reflective side faces the radiant and convective heat;

wherein all adhesives are contained between said first aluminum foil layer and a second aluminum foil layer.

2. The layered material of claim 1, wherein said layered material is comprised an outer shell and an inner shell, wherein said outer shell containing said first aluminum foil layer which is disposed nearest to the radiant and convective heat; and said inner shell contains said second aluminum foil layer.

3. The layered material of claim 2, wherein said outer shell is comprised of said first aluminum foil layer laminated to said at least one silica based cloth layer;

wherein said inner layer is comprised of said second aluminum foil layer and said fiberglass cloth layer sewn together or bound with adhesive; and

wherein said inner and outer shells are sewn together.

4. The layered material of claim 3, wherein said first aluminum foil layer and said second aluminum foil layer are 0.5 to 2.0 mils in thickness and said silica based cloth layer is 6 to 13

ounce cloth.

5        5.    The layered material of claim 4, wherein said first aluminum foil layer is 0.8 to 1.2 mils in thickness, said second aluminum foil layer is 0.5 to 0.8 mils in thickness and said at least one silica based cloth is 9 to 11 ounce cloth.

10       6.    The layered material of claim 5, wherein said first aluminum foil layer is about 1.0 mil in thickness, said second aluminum foil layer is about 0.65 mil in thickness and said woven silica cloth is 10 ounce cloth.

15       7.    An emergency fire shelter comprising:  
a floor and a canopy connected thereto,  
wherein said floor is oval in shape and has an opening therein;

wherein said canopy is semi-capsular in shape; and wherein said floor and canopy are constructed of a material that is heat and fire resistant.

20       8.    The emergency fire shelter of claim 8, wherein said material is comprised of at least two layers.

25       9.    The emergency fire shelter of claim 8, wherein said material has at least two aluminum foil layers, at least one silica based cloth layer, and at least one fiberglass cloth layer;  
wherein the layers are sewn together or bonded with adhesive;  
wherein a first aluminum foil layer is an outermost layer

which faces the radiant and convective heat; and

wherein all adhesives are contained between said first aluminum foil layer and said second aluminum foil layer.

5           10. The emergency fire shelter of claim 9, wherein said material is comprised of an outer shell and an inner shell, wherein said outer shell containing said first aluminum foil layer which is disposed nearest to the heat, and said inner shell containing said second aluminum foil layer.

10           11. The emergency fire shelter of claim 10, wherein said outer shell is comprised of said first aluminum foil layer laminated to said silica based cloth;

15           wherein said inner layer is comprised of said second aluminum foil layer and said fiberglass cloth layer sewn together or bound with adhesive; and

wherein said inner and outer layers are sewn together.

20           12. The emergency fire shelter of claim 11, wherein said first aluminum foil layer and said second aluminum foil layer are 0.5 to 2.0 mils in thickness and said silica based cloth is 6 to 13 ounce cloth.

25           13. The emergency fire shelter of claim 9, wherein said first aluminum foil layer is 0.8 to 1.2 mils in thickness, said second aluminum foil layer is 0.5 to 0.8 mils in thickness and said silica based cloth is 9 to 11 ounce cloth.

14. The emergency fire shelter of claim 9, wherein said first aluminum foil layer is approximately 1.0 mil in thickness, said second aluminum foil layer is approximately 0.65 mil in thickness and said silica based cloth is 10 ounce cloth.

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15. A fire shelter storage system allowing rapid deployment comprising:

an emergency fire shelter comprising a floor and a canopy connected thereto, wherein said floor is oval in shape and has an opening therein; wherein said canopy is semi-capsular in shape; and  
10 wherein said floor and canopy are constructed of a material that is heat and fire resistant;

an outer protective pouch sized to receive the emergency fire shelter unit through an open end of the pouch, the pouch further including a cover detachably covering the open end and retained by  
15 a releasable fastener attaching a portion of the cover to a portion of the pouch; and

a handle having one end attached to the emergency fire shelter unit and sized so that when the fire shelter unit is received within the pouch and the cover is in place over the opening, the  
20 handle may extend out of the pouch adjacent to the releasable fastener to present an exposed end to a user;

whereby the emergency fire shelter is removed from the pouch by applying a force to the handle to release the releasable  
25 fastener and extract the fire shelter unit from the pouch.

16. The fire shelter storage system of claim 15, wherein the emergency fire shelter unit is a folded and sealed in a protective envelope and wherein the handle is attached to the protective

envelope to be separate from the emergency fire shelter.

17. The fire shelter storage system of claim 15, wherein the handle is a flexible strap.

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18. The fire shelter storage system of claim 15, wherein the releasable fastener includes first fastener halves attached to the pouch and cover and wherein the handle includes second fastener halves whereby the handle may be interposed between the releasable  
10 fastener with the first fastener half of the pouch releasably attached to a second fastener half of the handle and the remaining second fastener half of the handle releasably attached to the first fastener half of the cover.

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19. The fire shelter storage system of claim 15, wherein the releasable fastener is a fabric hook and loop fastener.

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20. The fire shelter storage system of claim 15, wherein the fire shelter unit includes a secondary rigid protective sleeve holding a folded emergency fire shelter unit sealed in a protective envelope.